GOVERNMENT OF INDIA
WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION
LOK SABHA

UNSTARRED QUESTION NO:3163
ANSWERED ON:04.08.2016
Impact of Climate Change on Rainfall Distribution Pattern
Ering Shri Ninong

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION be pleased to state:

(a) the details of the implications of climate change on changing rainfall distribution pattern;
(b) whether enough research is being conducted in the matter and if so, the details and the progress thereof; and
(c) the manner in which the newly developed sustainable development goals with respect to water are to be achieved?

Answer

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT & GANGA REWVENATION
(DR. SANJEEV KUMAR BALYAN)

(a) Climate change has significant impact on rainfall distribution pattern of the country. Based on the analysis of rainfall data of more than 100 years, India Meteorological Department and other institutions have observed that there is no observed significant changes in all India southwest monsoon rainfall. However, multi-decadal epochs having frequent droughts and flood years with alternate sequence have been observed in the all India monsoon rainfall data. Significant changes in distribution of rainfall pattern over regional scales and also increasing trends in the frequency of extreme rainfall events in different parts of the country are being observed.

(b) Yes, studies are being carried out in National and Academic Institutions like Indian Meteorological Department, Indian Institute of Tropical Meteorology, National Institute of Hydrology, Indian Institute of Technologies and Indian Institute of Sciences.

(c) To address the newly developed Sustainable Development Goals ensuring availability and sustainable management of water and sanitation for all and taking urgent action to combat climate change and its impacts in particular, the Ministry of Water Resources, River Development and Ganga Rejuvenation is implementing a number of schemes, programmes and projects. Important ones include analysis of hydrological data for estimating floods of different return periods, developing models for flood forecasting and providing flood forecasting services to all major flood prone inter-State river basins of India, monitoring of selected major and medium irrigation projects to ensure their expeditious implementation, developing a framework to optimize water use by increasing water use efficiency by 20% in all the sectors, repair, renovation and restoration of water bodies, enhanced storage both above and below ground, rainwater harvesting coupled with equitable and efficient management structures, design of incentive structures to promote water neutral or water positive technologies and integrated water resource management for effective basin level planning to conserve water, minimize wastage and ensure more equitable distribution across and within the States.

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